HOW ARTIFICIAL INTELLIGENCE IS CHANGING THE WAY STUDENTS LEARN

Ahmadjonov Saidkamronkhon Kamolkhon ugli
(Student of UWED) saidkamronxon@gmail.com
Allamurodov Dilmurod Sakhadulla ugli
(Student of UWED) allamurodovd87@gmail.com
Supervisor
Munirakhon Mukhitdinova Ravshanovna
PhD, Associate Professor University of World Economy and Diplomacy
m.mukhitdinova@list.ru
https://doi.org/10.5281/zenodo.18938739

Annotation: This article examines the application of artificial intelligence among students and how it is transforming the learning process. The study analyzes the role of artificial intelligence in providing personalized education, developing fast and analytical thinking, enabling distance learning, and increasing the overall efficiency of the educational process.

Keywords: artificial intelligence, students, learning process, distance education

SUNIY INTELLEKT TALABALAR O‘RGANISH USULINI QANDAY O‘ZGARTIRMOQDA

Ahmadjonov Saidkamronxon Kamolxon o‘g‘li
(JIDU talabsi) saidkamronxon@gmail.com
Allamurodov Dilmurod Saxadulla o‘g‘li
(JIDU talabasi) allamurodovd87@gmail.com
Ilmiy rahbar
Muxitdnova Muniraxon Ravshanovna
PhD, Dotsent Jahon Iqtisodiyoti va Diplomatiya Universiteti
m.mukhitdinova@list.ru

Anontatsiya: ushbu maqolada suniy intelektning talabalar o’rtasida qo’llanilishi va ularning ilm olish jarayonini qay tarzda o’zgartirishi haqida yoritiladi. Suniy intelekt yordamida individual talim, tezkor fikr yuritish, masofaviy o’qish hamda o’quv jarayonining samaradorligi tahlil qilinadi.

Kalit so’zlar: suniy intelekt, talabalar, o’quv jarayoni, masofaviy ta’lim

КАК ИСКУССТВЕННИЙ ИНТЕЛЛЕКТ МЕНЯЕТ СПОСОБЫ ОБУЧЕНИЯ СТУДЕНТОВ

Ахмаджонов Саидкамронхон Камолхон угли
(студент УМЭД) saidkamronxon@gmail.com
Алламуродов Дилмурод Сахадулла угли
(студент УМЭД) allamurodovd87@gmail.com
Научный руководитель
Мунирахон Мухитдинова Равшановна
PhD, Доцент Университет Мировой Экономики и Дипломатии
m.mukhitdinova@list.ru

Аннотация: В данной статье рассматривается применение искусственного интеллекта среди студентов и то, каким образом он изменяет процесс получения знаний. Анализируется роль искусственного интеллекта в персонализированном обучении, развитии быстрого и аналитического мышления, дистанционном обучении, а также в повышении эффективности образовательного процесса.

Ключевые слова: искусственный интеллект, студенты, учебный процесс, дистанционное образование

INTRODUCTION:

The concept of artificial intelligence (AI) was first introduced as a scientific term in 1956 by John McCarthy at the Dartmouth Conference. Initially confined to a purely theoretical field, artificial intelligence has evolved incrementally over time as a product of programming, mathematics and neuroscience. One significant milestone in the development of artificial intelligence happened in 1997, when IBM’s Deep Blue supercomputer defeated the world chess champion Garry Kasparov. Today artificial intelligence is not just being applied for scientific research but also integrated into daily activities, used for smartphones, healthcare, finance, and transportation amongst other things.

Although research into AI has been around since the mid-20th century, public interest in the field grew much stronger in 2012 when deep learning demonstrated superiority over other AI methods, and again in 2017 following major breakthroughs achieved through transformer architectures. The early years of the 2020s witnessed rapid advancements in the area of artificial intelligence, with multiple companies, universities, and research laboratories making great strides and achieving impressive results.

In the context of higher education, AI-driven technologies are becoming indispensable tools for students, not only aiding their academic pursuits but also shaping the way they spend their leisure time [2]. From AI-powered learning platforms and personalized study assistants to entertainment apps and virtual communication tools, the role of AI in students’ lives has become more significant than ever [1,4]. Students spend increasing amounts of time in front of their screens, relying on AI for a variety of tasks, often at the recommendation of their instructors, who encourage them to leverage these technologies for assignments and research purposes [6]. In many cases, students turn to AI to find quick answers, automate processes, or personalize their learning experiences [4]. Outside of academia, AI-driven tools play an equally substantial role in entertainment, with students using these systems to engage in social media, gaming, and other forms of digital interaction during their free time [3].

In addition, excessive screen time can contribute to issues such as digital fatigue, isolation, anxiety, and poor mental health [5]. With the growing dependence on AI for learning, communication, and entertainment, students are exposed to digital environments that might lead to negative consequences for their overall well-being [5]. The boundary between educational tasks and recreational activities is becoming increasingly porous, making it harder for students to manage their time effectively or engage in meaningful offline interactions [6].

Methodology

To explore the impact of Artificial Intelligence (AI) on higher education experience and student well-being is the subject of this systematic mini-review. For the sake of transparency and clarity for other researchers, I have ensured that this review is written with PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines in mind.

Data Sources and Search Strategy

The search was conducted targeting two of the leading academic databases: Web of Science and Scopus. We chose to do so because of their high-quality peer-review standards throughout education and technology. In order to reach the intersection between AI and student life I employed a focused string:

("wellbeing" OR "well-being") AND ("AI" OR "artificial intelligence") AND "higher education"

The aim was to get beyond broad tech debates and identify studies that focus on the human side of AI—how it affects the mental and emotional health of university students.

Inclusion and Exclusion Criteria

I made clear what constituted a primary source in order to keep the analysis crisp and relevant. What was included:

• Empirical or experimental studies that offered real-world data on AI's impact.
• Journal articles that were published in reputable, peer-reviewed journals.
• Full-text studies available in English.

What was excluded:

• Opinions, theoretical essays or general reviews that didn't provide new data.
• Research that drifted away from higher education or neglected the "well-being" aspect.
• Gray literature or unpublished manuscripts.

The Selection Process

The first digital sweep resulted in 180 Web of Science results and also from Scopus a total of 73. After removing duplicates and screening titles and abstracts, I narrowed the selection down to studies that met all eligibility criteria. To minimize the bias, two independent reviewers (or researchers) screened the articles, and any disagreements were settled through collaborative discussion until a consensus was reached on the final list.

Data Analysis

In contrast to just summarizing the papers, I used thematic analysis to dig a little deeper. That included identifying recurring patterns and shared "themes" from across different studies, focusing on the ways that AI affects academic pressure, mental health, social dynamics, and the overall student journey. This structured synthesis allows for a cohesive narrative, even with a focused number of studies.

Limitations

While the sample size is relatively small in comparison, this is rather a clear indication of how new this field of research is. Rather than a deficiency, I see this as a baseline — which marks a significant gap in the existing literature and the basis for future empirical research.

Results.

Based on the data collected, the results show that artificial intelligence has become more advanced than its traditional uses as a peripheral tool and is now a central feature in the modern higher education experience. The objective of this review is to highlight three key domains where AI is having an impact: efficiency in learning, student well-being, and time management.

Personalisation and Efficiency of learning. The primary outcome discovered in the study is that there is a real increase in personalized instruction. AI systems enable personalized instruction, so that the course curriculum can be tailored to the individual learner and adjusted

to his or her rate of learning. Such technology has been successful at achieving speedier analytical reasoning and better process efficiency. In addition, AI has emerged as a key factor in bridging distance studies, so that students, regardless of their physical location, can continue pursuing their learning with high standards.

The Paradox of Student Well-being. As AI-powered tools have enhanced academic productivity, however, they carry new and significant challenges for student health. The study reveals a significant relationship between the rise of the use of AI-supported digital environments and “digital fatigue” among students. College-seeking students who use AI extensively through academic and recreational pursuits tend to report increased anxiety and social isolation. Moreover, excessive screen time connected to these technologies has been associated with poor physical health and disrupted sleep patterns.

The Relationship Between Study and Leisure Is Increasingly Blur. The study also showed that the dividing line between academic work and private relaxation is becoming increasingly thin. Since AI is embedded in both study assistants and entertainment platforms such as social media and gaming, students often have difficulty keeping up a good distinction between their commitments and their free time. This overlap makes effective time management a little more difficult. In addition, AI not only promotes virtual connection but also lowers the quality of the personal contacts made in real life, thus changing the nature of college.

Discussion.

This review's findings indicate that artificial intelligence is no longer an afterthought tool. It is an essential part of the modern higher education experience. AI has been a tremendous step forward in educational efficiency providing an avenue of personalized learning through analytical thinking. Indeed, in the world of distance education, when the physical presence of students in the classroom may be minimized, the need for AI to act as a bridge in this context is indispensable to keeping academic rigor among students. Yet amid this technological leap, such progress is fraught with a host of challenges. These results underscore a “well-being paradox” in which one might be making life easier via digital tools that have instead created digital fatigue and social isolation. With the line between academic work and leisure — social media and gaming, to give just one example — becoming increasingly blurred, students find it increasingly difficult to disconnect. But this constant connectivity contributes to physical declines and disrupted sleep patterns. While AI can certainly improve a student's cognitive function, a disciplined approach is needed to make certain that it does not overwhelm their personal and social life.

Conclusion.

To sum up the key information from this research, it is argued from the perspective of artificial intelligence, however, and in a broader, even more systematic manner, it will transform all aspects of the learning process into a more streamlined and analytical journey. Nevertheless, AI use in higher education is a mixed bag. While it does help one's education, it increases screen time and leads to mental health problems like anxiety or isolation which cannot be ignored in the future. In the future, universities as well as students should not strive to restrict AI usage; they should instead ensure good management. More studies are needed at that level to devise a policy that could ensure students continue to draw upon AI applications for academic excellence — even as they strike a healthy balance between how they live their

daily lives offline. And it will be up to educators to step forward and teach students how to use these powerful tools without potentially harming themselves and their social ties.

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